Is the U.S. Unemployment Rate Today Already as High as It Was in 1982?

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Executive Summary

In 1982, the United States experienced the highest annual unemployment rate since the Great Depression – 9.7 percent. In principle, that rate is directly comparable to the 8.1 percent seasonally adjusted unemployment rate for February 2009, and suggests that current unemployment is still not as bad as it was in 1982.

The official unemployment rate, however, masks two important differences between the unemployment rate in 1982 and today. The first is demographic. In 1982, the US population was substantially younger than it is today. Even in an otherwise identical economy, we would expect a younger population to have a higher unemployment rate than an older population would. The second difference is statistical. The main government survey used to measure the unemployment rate – the Current Population Survey (CPS) – reaches a smaller share of the population today than it did in 1982, and is especially likely to miss people who are not employed. As a result, the official unemployment rate understates the unemployment rate today relative to 1982.

We calculate an unemployment rate that takes these demographic and statistical issues into account and produce an unemployment rate for 2009 that is more directly comparable with the official 1982 rate. Putting the February 2009 unemployment rate on a basis that is more directly comparable to the unemployment rate in 1982, the current rate rises from 8.1 percentage points to 9.5 percentage points, just 0.2 percentage points below the 9.7 percent average for 1982.

Adjusting for the aging population raises the February 2009 unemployment rate about 1.2 percentage points; adjusting for the change in the coverage rate of the CPS raises the February 2009 unemployment rate an additional 0.2 percentage points.

Together, both effects reduce the 1.6 percentage-point gap between the 1982 and the February 2009 unemployment rate by 1.4 percentage points, making the current unemployment rate nearly identical to the rate reached in the year with the highest annual unemployment rate in the postwar period.

Introduction

In 1982, the United States experienced the highest annual unemployment rate since the Great Depression – 9.7 percent. In principle, that rate is directly comparable to the 8.1 percent seasonally adjusted unemployment rate for February 2009, and suggests that current unemployment is still not as bad as it was in 1982.

The official unemployment rate, however, masks two important differences between the unemployment rate in 1982 and today. The first difference is demographic. In 1982, the US population was substantially younger than it is today. Even in an otherwise identical economy, we would expect a younger population to have a higher unemployment rate than an older population would. The second difference is statistical. The main government survey used to measure the unemployment rate – the Current Population Survey (CPS) reaches a smaller share of the population today than it did in 1982, and is especially likely to miss people who are not employed. As a result, the official unemployment rate understates the unemployment rate relative to 1982.

Below, we calculate an unemployment rate that takes these demographic and statistical issues into account and produce an unemployment rate for 2009 that is more directly comparable with the official 1982 rate. After we adjust for the aging of the population, most of the 1.6 percentage-point difference between the average unemployment rate in 1982 and the rate in February 2009 disappears. The gap between the unemployment rate then and now falls from 1.6 percentage points to about 0.4 percentage points. We also adjust for the decline in the coverage rate in the official government survey used to calculate unemployment, which probably reduces the measured unemployment rate today by about 0.2 percentage points relative to the measured rate in 1982. After making both the demographic and the statistical adjustments, the difference in the unemployment rate between 1982 and 2009 falls to only 0.2 percentage points. On a comparable basis, the unemployment rate in February 2009 would be 9.5 percent, compared 9.7 percent in 1982, the peak annual unemployment rate in the postwar period.

Calculating a Comparable Unemployment Rate

The official definition of unemployment has not changed between 1982 and the present. But, if we are interested in using the unemployment rate to assess the degree of underutilization of resources in the economy, the official measure does not tell the full story. Relative to 1982, the official unemployment rate today understates the true slack in the economy for two reasons. First, the population is much older today than in 1982. The median age of the labor force was 42 years in 2008, compared to just 35 in 1982.[1] Younger workers are more likely to switch jobs frequently and typically have fewer dependents and financial commitments so they can more easily endure periods of unemployment. As a result, all else equal, younger populations have a higher unemployment rate than older populations. We therefore expect a lower unemployment rate with today's older population than we had with the much younger population in 1982, even if the economy were in an identical recession in both years.

The second reason that the published unemployment rate today understates labor-market slack relative to 1982 is that the CPS misses a larger portion of the population today than in the past.[2] The Census Bureau estimates, for example, that in 1986 the CPS covered 93.0 percent of the population, but by 2005 the coverage rate had dropped to 89.7 percent.[3] For most purposes, the Census Bureau has techniques to compensate for the decline in coverage, but, for technical reasons, these fixes do not correct for the tendency of those excluded to be non-employed.[4] The failure to take the lower employment rates of the uncovered population into account can lead to an important understatement of the unemployment rate today relative to 1982.

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[1] Authors' analysis of the CEPR extract of the Outgoing Rotation Group (ORG) of the Current Population Survey, 1982 and 2008.

[2] This is a problem shared by almost all private and public household surveys, related to a broad decline in households' cooperation with surveyors. However, the CPS remains the best survey of labor-market activity in the United States.

[3] Data for 1986 are from the Office of Management and Budget, Federal Committee on Statistical Methodology, Statistical Policy Working Paper No. 17 – Survey Coverage April 1990, Tables 14 and 15, (http://www.fcsm.gov/working-papers/wp17.html); data from 2005 are unpublished data from the Census Bureau, supplied by Lawrence Mishel, Economic Policy Institute. For compilation of coverage rates over the period 1984 to 2005, including breakdowns by race and gender, see Schmitt and Baker (2006b), Table 3.

[4] For a full discussion, see Schmitt and Baker (2005, 2006a, 2006b).

Below, we review the available evidence and estimate the likely impact of both effects on comparisons of the unemployment rate between 1982 and the present.

Demographics: Aging Population

A short example is the easiest way to illustrate the impact of demographics on the unemployment rate. Imagine that we are looking at the same simple economy with only two kinds of workers – young and old – at two different times. We'll assume that in the first period, young workers were a big part of the labor force – 40 percent of the total (which means old workers are 60 percent). We'll also assume that the unemployment rate for younger workers was much higher (20 percent) than for older workers (10 percent). Under these assumptions, the overall unemployment rate in the first period would be 14 percent (0.4 x 20 percent + 0.6 x 10 percent). Now, in the second period, let's assume that the unemployment rates for both kinds of workers are exactly the same as they were in the first period – 20 percent for younger workers and 10 percent for older workers. But now we'll assume that the labor force has aged, so that only 10 percent are young (meaning that 90 percent are old). In the second period, then, the overall unemployment rate would be just 11 percent (0.1 x 20 percent + 0.9 x 10 percent). The aging of the population has driven the unemployment rate down by three full percentage points, even though the unemployment rates for younger and older workers were identical in both periods.

Fortunately, controlling for the impact of the aging of the population on the unemployment rate is fairly straightforward. We can simply estimate the unemployment rate today assuming we had the same younger age structure now that we had in 1982. (We can also do the opposite: calculate the unemployment rate in 1982 under the assumption that we had the same younger age structure that we have today.) **Table 1** describes the procedure. The second column in the table shows the unemployment rate in 1982 for six age groups, from young to old. The unemployment rate is much higher for younger workers (17.7 percent for 16 to 24 year olds, for example) than it is for older workers (5.7 percent for 45 to 54 year olds). The fourth column shows the unemployment rate for the same age groups in 2008, with the same pattern on display. In 2008, younger workers had a much higher unemployment rate (12.9 percent for 16 to 24 year olds) than older workers did (4.1 percent for 45 to 54 year olds). The key columns, however, are the third and fifth columns, which give the share of each age group in the overall labor force in each year. These columns demonstrate the scale of the aging of the labor force that has taken place since 1982. In 1982, the youngest workers, those 16 to 24, were 22.3 percent of the labor force; by 2008, 16 to 24 year olds had declined by almost half to 14.3 percent of the labor force. The share of the next youngest age group, 25 to 34 year olds, also fell between 1982 and 2008 (from 28.3 percent in 1982 to 21.6 percent in 2008).

TABLE 1
Unemployment Rates by Age and Age-Weighted Unemployment Rates, 1982 and 2008

	1982		2008	
Age	Unemployment rate	Share of labor force	Unemployment rate	Share of labor force
16-24	17.7	22.3	12.9	14.3
25-34	9.8	28.3	5.8	21.6
35-44	6.9	20.4	4.6	22.7
45-54	5.7	15.3	4.1	23.3
55-64	5.4	10.9	3.7	14.0
65+	3.6	2.8	4.3	4.0
Overall (all ages)				
Using 1982 labor shares	9.7		6.6	
Using 2008 labor shares	8.4		5.8	

Notes: Authors' analysis of CEPR extract of the Outgoing Rotation Group (ORG) of the Current Population Survey, 1982 and 2008.

As in the simple example above, the overall unemployment rate in each year is just the weighted average of the unemployment rates for each age group. So, for 1982, the overall unemployment rate – 9.7 percent – is the unemployment rates for each age group in column two weighted by the share of each age group in the labor force in column three; for 2008, the overall unemployment rate – 5.8 percent – is, identically, the unemployment rates for each age group in column four weighted by the share of each age group in the labor force in column five. If we want to control for the aging of the labor force between 1982 and 2008, we can calculate the overall unemployment in 2008 using the age-group unemployment rates in 2008 in column four and the labor-force weights from 1982 in column three. This calculation imposes the 1982 age structure on the 2008 labor-force outcomes by age group and yields an unemployment rate of 6.6 percent, about 0.8 percentage points higher than the official 5.8 percent rate for 2008. Similarly, we can estimate what the unemployment rate would have been in 1982 if the labor force had been as old then as it was in 2008. Using the age-group unemployment rates from column two and the labor-force weights from column five produces an estimated unemployment rate for 1982 with a 2008 age structure of 8.4 percent, about 1.3 percentage points lower than the actual unemployment rate in 1982.

Table 1 uses data for the full calendar year of 2008. The unemployment rate in February 2009 – 8.1 percent – is already well above the average for last year. If we assume that the effect of demographics in February 2009 is proportional to the effect for the calendar year 2008, then the 8.1 percent unemployment rate in February 2009 would, after adjusting for changes in the age structure of the labor force since 1982, rise to 9.3 percentage points, or just 0.4 percentage points lower than the average for 1982. Alternatively, we can directly compare the 8.1 percent unemployment rate with the estimated 8.4 percent rate for 1982 using the 2008 age structure. This second calculation suggests that the unemployment rate in February 2009 was only about 0.3 percentage points below the average for 1982.[5]

[5] It is possible to also do a comparable demographic adjustment for changes in the racial and ethnic composition of the work force. African Americans and Hispanics, both groups with higher than average unemployment rates, comprise a larger share of the work force in 2009 than they did in 1982. We have not made this sort of adjustment here because there is no reason to assume that higher unemployment rates are intrinsic to these groups in the same way that younger workers are more prone to unemployment than older workers for reasons mentioned in the text above.

Statistics: Declining Coverage Rate in the CPS

The decline in the coverage rate of the CPS, a phenomenon that has affected almost all government and private household surveys, has had an important impact on the survey's ability to estimate the national employment rate. In earlier work, we demonstrated that in 2000, the CPS overstated the employment rate by about 1.4 percentage points, based on a comparison of employment rates in the CPS with an adjusted measure for employment in the 2000 Census covering the same period.[6] (The coverage rate for the CPS has fallen further since 2000.) These earlier estimates suggest that about one-third – 0.5 percentage points –of this overstatement of employment corresponds to an understatement of the unemployment rate relative to its true rate.[7] We also showed that the deterioration in coverage rates between 1986 and 2005 likely added 0.6 percentage points to the overstatement in national employment rates (with the overstatement of employment increasing from 1.2 percentage points in 1986 to about 1.8 percentage points in 2005).[8] Assuming, as suggested above, that about one-third of this rising overstatement of employment rates corresponds to a rising underestimate of the national unemployment rate, the long-term decline in CPS coverage rates means that recent unemployment rates understate unemployment by about 0.2 percentage points relative to 1982.

Combining the Two Effects

Figure 1 summarizes the impact of both the demographic and the survey effects on comparisons of unemployment rates between 1982 and February 2009. The first bar shows the official unemployment rate for 1982 – 9.7 percent. The second bar shows the official unemployment rate for 2008 – 8.1 percent, or 1.6 percentage points below the 1982 rate. The third bar gives our estimate of the unemployment rate in February 2009 if we had the same, much younger age structure now that we had in 1982 – about 9.3 percent, or just 0.4 percentage points below the average rate for 1982. The fourth column presents our estimated unemployment for 2009 assuming that the CPS had the same coverage rate in 2009 that it had in 1982 – about 8.3 percent. The final column combines our estimates of both effects. The resulting unemployment rate – which puts the 2009 rate on a comparable basis with the 1982 rate – suggests that the gap between the current unemployment rate and that of 1982 is now just 0.2 percentage points.

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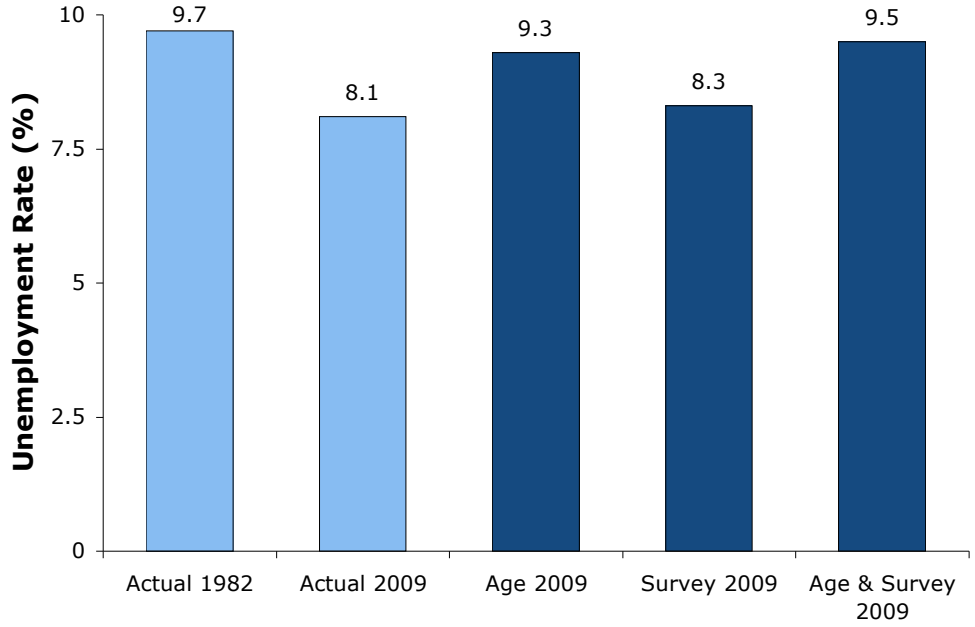
[6] The estimates for 2000 compare the CPS, which had a 92.0 percent coverage rate in that year, to the 2000 Decennial Census, which had a 98.8 percent coverage rate over the same period. See Schmitt and Baker (2005, 2006a) for complete details.

[7] See Schmitt and Baker (2006a), Table 1.

[8] See Schmitt and Baker (2006b), Figure 1.

FIGURE 1
Effects of Demographics and Survey Response on 2009 Unemployment Rate



Conclusion

The aging of the US population and the reduction in coverage rates of the main US labor-market survey mean that the official unemployment rate does not provide a completely consistent basis for comparing labor-market slack between the early 1980s recession and the current economic downturn. We calculate an unemployment rate for February 2009 that takes these demographic and statistical issues into account.

Putting the February 2009 unemployment rate on a basis that is more directly comparable to the unemployment rate in 1982, the February 2009 rate rises from 8.1 percentage points to 9.5 percentage points, just 0.2 percentage points below the 9.7 percent average for 1982. Adjusting for the aging population raises the February 2009 unemployment rate about 1.2 percentage points; adjusting for the change in the coverage rate of the CPS raises the February 2009 unemployment rate an additional 0.2 percentage points. Together, both effects eliminate almost all (1.4 percentage points) of the 1.6 percentage-point gap between the 1982 and the February 2009 unemployment rates. The current unemployment rate, therefore, is nearly identical to the rate reached in the year with the highest annual unemployment rate in the postwar period.

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